

ABSTRACT OF THE DISCLOSURE

The semiconductor device of the present invention comprises an optical transmission region, and a light receiving part for converting light propagating through
5 the optical transmission region to an electrical signal, wherein the optical transmission region comprises a two-dimensional optical waveguide layer, and wherein at least a portion of the light receiving part is embedded in the optical transmission region, whereby the present
10 invention can provide a semiconductor device having reduced direction dependency when light propagating through the optical transmission region is received.